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AUTHOR Larr, Alfred L.; Holmes, Robert T.
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ABSTRACT

A questionnaire was constructed and evaluated by specialists in the field of reading instruction to gain information regarding the use of the Initial Teaching Alphabet (i/t/a). Elementary teachers and reading specialists in 16 randomly sampled school districts in nine states were questioned. Eight of the systems were in districts generally favorable to i/t/a, eight from districts generally unfavorable to i/t/a. The questionnaire was divided into two parts. The first requested information concerning six pupil abilities. The second sampled teacher opinions regarding six potentially negative factors. Data from the first part showed that the highest proportion of teachers responding reported improvement in free written composition. In response to the second part of the questionnaire the advantages of i/t/a were reported, on the average, to be greater than the disadvantages. The findings raised additional questions that pointed to the need for further research. Tables and references are included. (NH)

THE EFFECT OF ITA ON PUPIL ABILITIES

Alfred L. Larr
and
Robert T. Holmes

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Introduction

The research pertaining to effectiveness of the Initial Teaching Alphabet (ITA) as an instructional medium shows widely divergent conclusions. The ITA Foundation Office has reported favorable results with 100,000 children in Great Britain and in classrooms of nearly every state throughout this nation.¹ Mazurkiewicz² found generally superior performances by children who used ITA materials. The experimental (ITA) groups in a study by Hayes and Wuest³ revealed significantly higher word meaning, word study skills and spelling scores. The advantages of ITA were demonstrated in the results of an investigation by Stewart.⁴

¹I.T.A. Foundation Report. Hempstead, New York: Initial Teaching Alphabet Foundation, 1966, p. 2.

²Albert J. Mazurkiewicz, "ITA and TO Reading Achievement When Methodology is Controlled - Extended into Second Grade," Reading Teacher (May, 1967), 726-729.

³Robert B. Hayes and Richard C. Wuest, "I.T.A. and Three Other Approaches to Reading in First Grade - Extended into Second Grade," Reading Teacher (May, 1967), 694-699.

⁴Rebecca W. Stewart, "ITA - After Two Years," Elementary English (November, 1965), 660-665.

Dr. Larr is ~~an Associate~~ Professor of Speech and Dr. Holmes is ~~an Associate~~ Professor of Marketing, both serving at California State College, Long Beach.

The article by Magnuson⁵ is typical of an impressive number of teacher reports which indicate that ITA makes a significant contribution to first grade reading and writing programs.

However, many authorities concluded that minimal or insignificant differences exist between currently available media or materials. Bond and Dykstra⁶ presented generally inconclusive results and reported no statistically significant differences between ITA groups and those groups with whom traditional basal readers were used. The differences between pupils taught by ITA procedures, the traditional method and his D.M.S., after completing the first grade were not significant, according to E. B. Fry.⁷ Chasnoff,⁸ also found no significant differences between ITA groups and classes taught through traditional orthographic procedures. Downing's claim, that traditional orthography is an important cause of reading difficulty,⁹ has apparently not been

⁵Ralph Magnuson, "i.t.a. Team Teaching," i.t.a. Bulletin (Winter, 1966), 4.

⁶Guy L. Bond and Robert Dykstra, "The Cooperative Research Program in First-Grade Reading Instruction," Reading Research Quarterly (Spring, 1968), 122-126.

⁷Edward B. Fry, "First Grade Reading Instruction using Diacritical Marking System, Initial Teaching Alphabet and Basal Reading System - Extended to Second Grade," Reading Teacher (May, 1967), 692.

⁸Robert E. Chasnoff, "Two Alphabets: A Follow-up," Elementary School Journal (February, 1968), 251-257.

⁹John A. Downing, Evaluating the Initial Teaching Alphabet, London: Cassell and Co., 1967, p. 295.

challenged in the literature of that area of investigation. It would seem that change is indicated, but opinions differ concerning the modifications that should be recommended.

Because of the large number of variables which influence the results of inquiry in this field, objective measurement is extremely difficult or impracticable. It is possible that the most useful information regarding ITA will be provided by subjective evaluations of the individuals so highly qualified to report on pupil behavior, the elementary teachers and reading specialists. Their constant efforts to assess the effectiveness of new procedures may give them unique capability for judging the effectiveness of ITA.

Information on teacher attitudes regarding ITA was obtained through questionnaire procedures. A preliminary study of pupil abilities considered to be influenced in the utilization of simplified and regularized reading systems disclosed six main factors which merited investigation. An equal number of factors representing potential detriment to the educational program were found. A sample questionnaire was constructed and evaluated by specialists in the field of reading instruction.

Dr. John A. Downing, Director of the British ITA research project, serving as visiting Professor of Educational Psychology at the University of California, Berkeley, recognized the need for this phase of our study and agreed to assist in the selection of a representative sample of teachers, widely distributed throughout the United States, for the current investigation.

Procedures

The questionnaire utilized in this study provided for teacher responses on a nine-point scale. Part 1 requested information concerning six pupil abilities: (1) Free written composition (2) Silent reading ability (3) Oral reading ability (4) Spelling ability (5) Free oral expression and (6) Number concepts. Part 2 sampled teacher opinions regarding six potentially negative factors: (1) The necessity of making a transition from ITA back to the traditional orthography (2) The necessity for teachers to learn a new alphabet (3) The necessity of spending additional funds for new instructional materials (4) The possibility of inviting criticism from people in the community who oppose the adoption of new systems (5) The necessity of obtaining cooperation from already over-burdened administrators (6) The requirement of radical change from traditional procedures in reading instruction.

The instructions to teachers who participated in the study were contained in a covering letter and in the directions preceding Part 1 of the questionnaire. Table I shows the instructions, the key to the nine-point scale and the six questions regarding pupil abilities. Space for comments appears at the bottom of the page. A tabulation of the total responses from all teachers who participated in this study is presented in this table, and in Table II which will follow.

The information pertaining to potentially negative factors, with a tabulation of total responses in Table II, is followed by a space

for comments and the request that additional pages be used if more explanation should be required. Respondents were able to use all categories of the nine-point scales. However, so few responded with opinions indicating regression and disadvantages that careful statistical analysis on a nine-point scale was precluded. For purposes of analysis and display the scales were collapsed to three-point scales shown in Tables III and IV.

In February, 1968 questionnaires were sent to the superintendents of sixteen randomly sampled school districts in Arkansas, California, Florida, Illinois, Michigan, Missouri, Montana, New York and Wisconsin. Eight were randomly selected from a list of school districts from which generally favorable results for ITA had been reported and were distributed throughout the United States. Eight were similarly selected from a list of schools from which there was indication of no significant differences or results unfavorable to ITA.

A covering letter attached to the questionnaire gave the following instructions to participants:

The questionnaire may be completed by marking an X on the scale after each item, writing any comments you consider necessary or useful, signing your name, indicating your position and the type of work in which you are engaged. Additional comments may be written on separate pages and attached to the questionnaire. Your name will not be used in any published report or correspondence without your permission. You will be supplied with the results of the study upon request.

TABLE I
Research Questionnaire Summary, Part 1

Key:

- | | |
|--------------------------|---------------------------|
| 1. Very Great Regression | 6. Slight Improvement |
| 2. Great Regression | 7. Definite Improvement |
| 3. Definite Regression | 8. Great Improvement |
| 4. Slight Regression | 9. Very Great Improvement |
| 5. No Change | |

1.	Effect of ITA Medium upon <u>silent reading ability</u> of your students.	1	2	3	4	5	6	7	8	9	Total
		1	1	3	4	6	5	28	14	7	69
2.	Effect of ITA Medium upon <u>oral reading ability</u> of your students.	1	2	3	4	5	6	7	8	9	Total
		1		2	1	5	9	22	21	8	69
3.	Effect of ITA Medium upon <u>free written composition ability</u> of your students.	1	2	3	4	5	6	7	8	9	Total
		1				1	4	5	11	48	70
4.	Effect of ITA Medium upon <u>free oral expression ability</u> of your students.	1	2	3	4	5	6	7	8	9	Total
						29	15	14	5	6	69
5.	Effect of ITA Medium upon <u>number concepts ability</u> of your students.	1	2	3	4	5	6	7	8	9	Total
						60	5	2		1	68
6.	Effect of ITA Medium upon <u>spelling ability</u> of your students.	1	2	3	4	5	6	7	8	9	Total
		1		2	2	4	12	20	11	12	64

TABLE II

Research Questionnaire Summary, Part 2

Key:

- | | |
|----------------------------|-------------------------|
| 1. Very Great Disadvantage | 6. Slight Advantage |
| 2. Great Disadvantage | 7. Definite Advantage |
| 3. Definite Disadvantage | 8. Great Advantage |
| 4. Slight Disadvantage | 9. Very Great Advantage |
| 5. Neutral | |

1. The requirement of <u>transition</u> from ITA to traditional orthography	1	2	3	4	5	6	7	8	9	Total
	1			11	29	3	12	7	3	66

2. The requirement for <u>teachers to learn ITA.</u>	1	2	3	4	5	6	7	8	9	Total
			2	9	22	1	13	8	13	68

3. The requirement of <u>obtaining and paying for instructional materials</u>	1	2	3	4	5	6	7	8	9	Total
		1	7	6	30	1	7	2	6	60

4. The criticism and comments by parents and people in the community	1	2	3	4	5	6	7	8	9	Total
		1		11	21	7	11	8	6	65

5. The requirement of <u>obtaining cooperation of administrative personnel</u>	1	2	3	4	5	6	7	8	9	Total
				4	24	2	10	9	17	66

6. The requirement of <u>changing the established system in teaching reading</u>	1	2	3	4	5	6	7	8	9	Total
			4	11	17	2	13	3	10	60

Results

All questionnaires returned by July 31, 1968 were tabulated in this study. Seventy-six teachers returned the completed questionnaire. Thirty-seven were from districts representing responses that were generally favorable to ITA. Thirty-nine were from districts reporting generally neutral or unfavorable reactions regarding replacement of traditional orthography with ITA.

Table III shows teacher response differences among three areas: silent reading ability, oral reading ability and spelling ability to be not statistically significant at alpha 0.05, using Chi Square. Therefore, the contribution of ITA to these three skills was considered to be approximately equal, as judged by the teachers who responded on these items. Seventy percent of the teachers expressed the opinion that pupils had shown improvement with the use of ITA. Twenty-six percent believed that no change had occurred as a result of its use. Only five percent thought that a regression had taken place in such factors as silent reading ability, oral reading ability and spelling ability.

An entirely different trend of responses was evident to the questions on oral expression and number concepts than to the core group of abilities, silent and oral reading and spelling. Therefore, these two questions, as well as the one on free written expression were compared to the average response to questions on reading and spelling. Responses to these other three questions: free written composition, oral expression and number concepts each differed significantly, at alpha 0.05, from the response distribution to the three core abilities.

Teachers were apparently most enthusiastic about the use of ITA when responding to the question of student ability in free written composition. Ninety-eight percent of the teachers attributed improvement in written composition to ITA. Less impact was credited to ITA in judging free oral expression. However, fifty-eight percent believed that improvement in oral expression had occurred and forty-two percent found no change. Comments at the bottom of completed questionnaires or on attached pages served to explain the individual responses. However, they were not used in the statistical analysis presented in this report.

Table IV shows teacher response differences to questions on potentially negative aspects of utilizing ITA in the classroom. Forty-five percent of the teachers found advantages in the use of the new alphabet, thirty-seven percent had neutral reactions and eighteen percent saw disadvantages in utilizing it.

Responses to four questions were not significantly different statistically from the average of all responses, forty-five percent showed advantages, thirty-seven percent were neutral reactions and eighteen percent found disadvantages. These questions were on the requirement of transition from ITA to TO, the requirement of teachers to learn ITA, criticism from parents and others, in addition to the need to change the traditional system of teaching reading.

Responses to two questions revealed differences that were statistically significant. Only twenty-seven percent recognized

TABLE III
TEACHER ATTITUDES CONCERNING THE EFFECT
OF I.T.A. ON PUPIL ABILITIES

Positive Aspects	Percentages of Teacher Judgments Re.I.T.A.			Total %	X ² *	Number of Responses to Item
	Improve- ment %	No Change %	Regres- sion %			
1. Free Written Composition	98	1	1	100	8.74	70
2. Silent Reading Ability	78	9	13	100	1.98	69
3. Oral Reading Ability	87	7	6	100	.74	69
4. Spelling Ability	86	6	8	100	.45	64
5. Free Oral Expression	58	42	0	100	126.8	69
6. Number Concepts	12	88	0	100	653.1	68

Average 70% 26% 5% 100%

* Critical value of X² at alpha - 0.05 and two degrees of freedom is 5.99.

TABLE IV
TEACHER ATTITUDES CONCERNING THE EFFECT OF I.T.A.
ON POTENTIALLY NEGATIVE ASPECTS OF THE SUBJECT

Potentially Negative Aspects	Percentages of Teacher Judgments Re. I.T.A. Use			Total %	χ^2 *	Number of Re- sponses to Item
	Advan- tages %	Neutral Reactions %	Disadvan- tages %			
1. Transition from I.T.A. to Tradi- tional Orthography	38	44	18	100	1.87	66
2. Requirement for Teachers to Learn I.T.A.	52	32	16	100	.96	68
3. Requirement to Pay for Instruc- tional Material	27	50	23	100	8.21	60
4. Criticism and Comments from Parents & Others	49	32	19	100	2.07	65
5. Requirement to Obtain Coopera- tion of Adminis- tors	58	36	6	100	7.46	66
6. Requirement to Change the System of Teach- ing Reading	48	28	25	100	2.63	60

Average 45% 37% 18% 100%

* Critical value of χ^2 at alpha - 0.05 and 2 degrees of freedom is 5.99.

advantages in the requirement of obtaining and paying for instructional materials. Neutral reactions to this question increased to fifty percent and only twenty-three percent believed it was a disadvantage to procure and pay for the ITA materials. The second question, that of requiring the cooperation of administrative personnel, was not viewed as an important problem; since only six percent considered this factor to be a disadvantage. Fifty-eight percent of the teachers found advantage in this requirement.

Summary and Conclusions

The respondents in this survey of opinions representative of teachers who have used ITA report significant improvements in pupil abilities when compared to other methods they have employed. The highest proportion of teachers reported improvement in free written composition. The next highest proportion of responses found improvement in silent reading, oral reading and spelling ability. Respondents were equally divided in their opinion regarding free oral expression. Number concepts were believed to be unaffected by the use of ITA, in the opinion of nearly ninety percent of the respondents in this questionnaire study.

When those aspects, sometimes thought to be to the disadvantage of the educational program, were examined; it was found that there were sharply divergent opinions. On the average, however, the advantages of ITA were reported to be greater than the disadvantages. Forty-five percent of the responses were favorable. Thirty-seven percent were

neutral and eighteen percent found disadvantage in these factors. The four aspects in which this average judgment held were: (1) transition from ITA to traditional orthography, (2) requirement for teachers to learn ITA, (3) criticism and comments from parents and other individuals, and (4) requirement to change the system of teaching reading. The necessity of obtaining administrative cooperation showed fewer disadvantages than any of the potentially negative aspects. The problem of cost was considered to be a disadvantage in the opinion of twenty-three percent of the respondents.

These findings raise additional questions that point to the need for additional research. In the first place, the extent to which pupil abilities vary with differences in intelligence, class size and educational achievement emerges as an area for continued research. Another area in need of investigation is the conditions which cause some teachers to report no change in pupil abilities, while other teachers report improved abilities during the period in which ITA had been used. There remains, also, the question posed by Downing¹⁰ concerning the construction of the ITA, itself. The design of an alphabet even more simplified than those previously employed is needed to be experimentally compared with the Pitman system, and with the traditional orthography.

¹⁰John A. Downing, "What's Wrong With i.t.a.?" Phi Delta Kappan (February, 1967), p. 262.